

Abstract

Title: Effect of mechanical correction of hallux valgus deformity

Objectives: The aim of this diploma thesis is to investigate the influence of axial correction of hallux valgus deformity on static and dynamic postural stability.

Methods: This pilot study involved 8 people ranging in age from 22 to 30 years with mild or moderate degree of hallux valgus deformity. Five probands had hallux valgus deformity bilaterally, three probands had deformity unilaterally on the right leg. Axial correction of position of first MTP joint was made by tape. Postural stability was measured using computerized dynamic posturography EquiTest Smart System from Neurocom before and after intervention. Measured data were processed using Neurocom Balance Manager Software. For the analysis of the data were used statistical methods - paired t-test, Wilcoxon rank test and the rate of clinical significance (Cohen's d).

Results: The results indicates that the axial correction of hallux valgus deformity has positive effect on the dynamic postural stability. This impact wasn't demonstrated in static situations.

Keywords: hallux valgus, great toe, postural stability, corrective taping, computerized dynamic posturography